Title: University student behaviours towards accessing sexual health information and treatment

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Abstract

Globally, it is widely recognised that young people (those under the age of 25 years) are at a higher risk of developing sexually transmitted infections (STIs). The majority of university students studying in the UK fall within this age bracket and to help prevent such high incidence of STIs in this age group, it is essential that advice and treatment, if required, is obtained from reliable sources. This study sought to explore sources of sexual heath advice and treatment for students at Welsh universities (n = 3007). The main sources of advice were identified as the internet (49.1%) and GP/family doctors (38.9%), whilst local sexual health clinics (24.9%) and GP/family doctor services (20.2%) were the main sources for treatment in students. Males were more likely than females to report never needing advice (AOR 2.74; CI=2.24-3.35) or requiring treatment (AOR 1.37; CI=1.17-1.60). The apparent lack of engagement with these services by male students is a cause for concern, although one possible solution could be to further develop online methods to increase uptake of testing. Furthermore, the popularity of the internet for advice provides a timely reminder that regulation of online sexual health information is critical.

Keywords: High-risk behaviour, Sexual behaviour, Treatment

Introduction

In the United Kingdom (UK) it is widely recognised that young people (those under the age of 25 years) are at a higher risk of developing sexually transmitted infections (STIs [1]). In Wales, the most recent data highlighted that young people are still disproportionately affected by STIs. For example, gonorrhoea diagnoses rates in sexual health clinics for 15-24 year olds were almost four times greater than the overall population (126.8 per 100,000 vs. 32.9 per 100,000); [2]. The burden of STIs amongst young people is not unique to the UK and data from Europe and the United States highlight that notification rates for chlamydia remain highest amongst those in this age group [3-4]. STIs can cause genital symptoms affecting quality of life, important psychosocial consequences, and serious morbidity and mortality through pregnancy complications, cancer, infertility, and enhanced HIV transmission [5]. The predicted economic burden to treat STIs is projected to be upwards of £3.5 billion (~$4.4 billion) in the UK for the period 2015-2020 [6]. Thus, efforts to understand, and reduce exposure to, sexual health risks is of paramount importance to population health improvement at UK, European and even a global level.

The majority of university students studying in the UK fall within this 15-24 year old age bracket (~60-80% [7]) and global evidence suggests that this population have a higher prevalence of risky behaviours including infrequent condom use and prior alcohol consumption and are, therefore, at a greater risk of acquiring STIs [8-12]. What is not so well documented are lessons on risk reduction opportunities, such as where university students access sexual health information and treatment. However, the literature does suggest that for some time now, the internet has been used as a source of advice for all health related matters [13], and has been demonstrated to be a popular resource for young adults and teenagers seeking sexual health

advice, irrespective of sexuality [14-17]. Even as far back as a decade ago the internet was the leading source for sexual health information in a cohort of US college students [14].

The availability of sexual health information and advice on campus has also been viewed as an important resource for US college students [18]. Other resources valued by students, include on- and off-campus sexual health clinics, and condom distribution programmes [18]. The greater number of these resources available to students has demonstrated a lower likelihood of practising high-risk sexual behaviours [18]. The student population have expressed a strong preference for a comprehensive testing service that provides tests for all STIs to be available and readily accessible [19]. However, despite sexual health clinics being viewed as an important provision to prevent STIs in the student population, not all institutions offer sexual health services in their health centres [20], and in some regions less than half of institutions offer convenient STI testing [21]. Therefore, in some instances students who require sexual health treatment would need to access this via one of their least favoured options.

As part of a wide-ranging review of sexual health in Wales, Public Health Wales was asked to undertake a number of projects, one of which was to review population risks in the context of sexual health. This article examines the behaviours of students studying at Welsh universities in accessing sexual health information and treatment sources.

Methods

Data Source, Recruitment and Study Population

The data for this study was obtained from the Student Sex Survey, a UK-wide online questionnaire which formed part of the wider Student Sex Work Project [22-23] conducted between 2012 and 2015. This was a cross-sectional survey with university students invited to participate via email, Facebook and Twitter advertisements. The survey was incentivised and participants were offered the opportunity to enter a randomly selected prize draw which consisted of supermarket vouchers (top prize: £70) and condoms. In total, 10,991 UK respondents started the survey, of which 4,218 were either not valid responses or dropped out early (partial completion), resulting in a dataset of 6,773 respondents. This study focusses on the 3007 individuals who completed a valid questionnaire which indicated that they were a student studying in Wales.

Questionnaire Measures and Collected Variables

In total, the Student Sex Survey questionnaire consisted of nine sections which ranged from an individual's experience with the sex industry to their health and well-being, full details of the questionnaire sections have been documented in detail elsewhere [22]. The sections included in this study were the main demographics of the respondent (age, gender, sexuality, ethnicity) which also included the age of sexual debut, and the section that collected information more focused on health and well-being, more specifically ever having sought sexual health advice or treatment, and the reported sources of this advice (multiple responses allowed) and treatment (multiple responses allowed).

Statistical Analysis

Data was analysed using SPSS v.24. Chi square tests were used to investigate significant differences between groups. The age groupings for the data were reflective of the current literature and higher risk status [1-4] and were categorised as teenagers (18-19 years), young students (20-24 years), and older students (≥25 years), the remaining data groupings were gender (female, male, transsexual, other), sexuality (heterosexual, bisexual, homosexual, asexual, other), ethnicity (White, Mixed Race, Black, Asian) and age of sexual debut (under/over 16 years). Backward conditional logistic regression models were used to investigate strong associations between source of information or advice and source of treatment and collected groupings of variables. The Hosmer-Lemeshow test was consulted to assess the goodness of fit of the final logistic regression models.

Ethical Approval

All questionnaire respondents were provided with information about the study (an online version of the typical participant information sheet) and informed consent was obtained online by ticking a checkbox before the survey could be completed. Overall ethical approval for the study was granted by the College of Law Research Ethics board at Swansea University.

Results

The demographics (age, gender, sexuality, ethnicity, and age of sexual debut) of the participants in the study are detailed in Table 1. The majority of responding students were female (60.4%), of White ethnicity (90.9%), identified as heterosexual (81.6%) and were aged 24 years and younger (83.0%; Table 1).

Source of Advice

The two main sources of information for sexual health identified by questionnaire respondents were the internet, (49.1%), and general practitioner (GP) or family doctor (38.9%). Other popular sources of advice were local sexual health clinics (28.4%) and friends (29.1%), whilst pharmacy as a choice for sexually health advice was reported by only 8% (Table 2).

Male students were less likely than their female counterparts to report seeking advice from the internet (AOR 0.75; CI=0.65-0.88), GP/family doctor (AOR 0.36; CI=0.30-0.43), local SH clinics (AOR 0.43; CI=0.35-0.52) and friends. (AOR 0.45; CI=0.37-0.54) (Table 3). Male students were also more likely to report having never needed advice than females (AOR 2.74; CI=2.24-3.35).

Compared to teenage students, young and older students were more likely to seek advice from their GP/family doctor (young students: AOR 1.47; CI=1.23-1.75; older students: AOR 2.18; CI=1.70-2.81) and local SH clinics (young students: AOR 1.49; CI=1.23-1.81; older students: AOR 2.20; CI=1.70-2.90).

Male students (AOR 3.09; CI=1.60-5.99) and those students who identified as bisexual (AOR 3.77; CI=1.65-8.63) or homosexual (AOR 3.86; CI=1.73-8.63) were more likely to seek advice from sexual health charities compared to female students and heterosexual students, respectively (Table 3).

Source of Treatment

The two most popular choices for receiving sexual health treatment were from a local sexual health clinic (24.9%) or GP/family doctor (20.2%). Almost half of all respondents (46.0%) reported they had never needed treatment for a sexual health related condition (Table 4).

Both young and older students were more likely than teenagers to access treatment at local SH clinics (young students: AOR 1.66; CI=1.36-2.04; older students: AOR 2.51; CI=1.91-3.31) and GP/family doctors (young students: AOR 2.14; CI=1.71-2.68; older students: AOR 3.01; CI=2.24-4.03), whilst young students were also more likely than teenagers to access treatment at university SH clinics (AOR 2.14; CI=1.40-3.28).

Students who indicated that their sexual debut was under 16 years of age were more likely to source treatment from a local SH clinic (AOR 2.80; CI=2.31-3.39) GP/family doctor (AOR 1.49; CI=1.21-1.83), and pharmacies (AOR 1.73; CI=1.01-2.96) and less likely to have never needed treatment (AOR 0.64; CI=0.54-0.77) than students whose sexual debut was 16 years and older.

Males were less likely to receive treatment from local SH clinics (AOR 0.59; CI=0.48-0.71) and GP/family doctors (AOR 0.57; CI=0.46-0.70) than females and were more likely than females to report never needing treatment (AOR 1.37; CI=1.17-1.60).

Compared to heterosexual students, students who identified as bisexual were less likely (AOR 0.65; CI=0.50-0.86) to indicate that they have never required sexual health treatment (Table 5).

Discussion

This study examined university students' behaviours towards accessing sexual health advice and treatment for sexual health related conditions. The key findings of this study revealed that the main source of advice was the internet, with GP surgeries, local sexual health clinics and friends also popular sources of information. For accessing and receiving treatment, the two primary locations were either GP surgeries or local sexual health clinics. Our study also highlighted an apparent lack of awareness or unwillingness in male students to seek advice and subsequent treatment with regards to their own sexual health. Overall, these findings demonstrate a useful insight into the behaviours of university students and can help to better shape the provisions of sexual health services in this population demographic.

Our findings also showed results comparable with the existing knowledge base with regards to early sexual debut and sexuality. In agreement with existing literature [24-26], young adults who reported having sex at an earlier age (sexual debut under 16 years of age) were more likely to require treatment for a STI than those individuals whose sexual debut was 16 years and older. Our data also offer some similarities with regards to sexuality and, in particular, those individuals who identify as bisexual. Consistent with existing literature, our results demonstrated that bisexual males were more likely to have required sexual health treatment than heterosexual males [27]. This finding is attributed to bisexual males being at an increased risk of STIs than men who have sex with men (MSM) and heterosexual males [27]. We also observed that those individuals who did not identify as heterosexual were more likely to source sexual health advice from specialist sexual health charities. One reason for this observation could be that clinicians have reported not always being confident providing sexual health advice to the LGBT community [28], and LGBT individuals have reported being presumed heterosexual when receiving sexual health advice [29]. Therefore, the LGBT community may

feel more comfortable seeking sexual health advice from specialist sexual health charities rather than more conventional sources.

Our study demonstrated that the most popular source for students seeking sexual health information was the internet. This finding is consistent with that of US college students [14], and it appears that the practices and behaviours of US based college students is replicated in students studying at UK universities. These similarities emphasise the importance of accurate and high quality information being available on the internet and the prioritisation of reliable information being displayed on internet search engines [14]. Limited evidence is available with regards to accessing medical treatment in students, and one of the few examples examined healthcare use overall in sexually active female students, not just for sexual health [30]. Consistent with our findings, GP services were by far the most popular choice for receiving healthcare treatment [30] and it has been previously reported that a preferred student option for accessing sexual health treatment is from either a doctor or nurse with specialist sexual health knowledge [19]. Therefore, it appears that both our data and findings from existing studies demonstrate a clear preference from students to access more traditional services for sexual health treatment rather than other suitable options such as pharmacies.

It has also been well established that young males are less likely to seek medical treatment than their female counterparts [31], including for sexual health related matters [32-33]. It is therefore unsurprising that we observed differences in male student attitudes to seeking sexual health advice and/or treatment. It remains extremely worrying that there is an apparent lack of awareness of need or willingness to seek advice on sexual health in male students which could be a contributing factor to the increased levels of STIs in the student demographic. It has also been suggested that this male issue extends further than simply unwillingness or unawareness,

to more psychological factors [33]. Targeted attitude change interventions could be implemented for males that raise perceptions of STI risk and challenge current social norms [33]. One possible solution to engage males, could be the use of the internet for treatment. The internet was observed to be the most popular source of sexual health advice in males and there is emerging evidence on the feasibility of online sexual health testing [34-36]. Online sexual health testing has been demonstrated to increase uptake of sexual health testing in young students [34-35] and high risk groups [36], with suggestions that this online method removes some of the traditional barriers associated with conventional sexual health testing [35].

The findings from this study build on the previous research using data collected from the Student Sex Survey [22], although this study focusses on the student population as a whole rather than only those who have involvement with the sex industry. One of the main limitations to this study is that the influence and growth of social media is not accounted for. Although the internet as a source of information and/or treatment is a choice for the questionnaire, there was no elaboration on this selection and we were unable to differentiate between where on the internet students obtained their advice or treatment (e.g. health websites, social media platforms etc.). This information would have certainly further strengthened our understanding of where students access sexual health resources and this should be a topic of future research. Another limitation to consider is that participants were recruited via convenience sampling and this study only examined students currently enrolled at a university or HEI in Wales, which could have introduced unavoidable selection bias. Measurement errors could also have been included in the results. For example, European respondents would have been included in the analysis and their age of consent may have been legal and/or not considered early and we also acknowledge that some MSMs do not identify as either homosexual or bisexual, but heterosexual. The findings of the study are somewhat limited because the majority of

participants are of White ethnicity, which in itself is not an informative classification as this would again include international students who were simply studying at a Welsh university.

In conclusion, this study is one of the first to examine student behaviours towards accessing sexual health treatment in addition to exploring main sources of sexual health advice. Some of the key findings in this study reaffirm the existing knowledge base, notably the choice of conventional services (doctors or sexual health clinics) for treatment and the use of internet for advice, thus reminding us that regulation of online sexual health information is critical. The apparent lack of engagement with these services by male students is a cause for concern and one possible solution, given that the internet is the most popular choice for advice, could be to develop online testing methods to increase uptake of STI testing in this population.

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Table 1. Grouping characteristics of questionnaire respondents

	n (%)
Age Group	
Teenagers (18-19 years)	971 (32.3)
Young Students (20-24 years)	1525 (50.7)
Older Students (≥25 years)	412 (13.7)
Unknown	99 (3.3)
Gender	
Female	1816 (60.4)
Male	1158 (38.5)
Trans	18 (0.6)
Other	15 (0.5)
Age of Sexual Debut	
16 Years and over (or never)	2329 (77.5)
Under 16 Years	678 (22.5)
Sexuality	
Heterosexual	2453 (81.6)
Bisexual	274 (9.1)
Homosexual*	168 (5.6)
Asexual	28 (0.9)
Other	84 (2.8)
Ethnicity	
White	2734 (90.9)
Mixed Race	98 (3.3)
Black	47 (1.6)
Asian	102 (3.4)
Unknown	26 (0.9)

*includes both men who have sex with men (MSM) and women who have sex with women (WSW).

Table 2. Main sources of sexual health advice grouped by age, gender, age of sexual debut, sexuality and ethnicity

		Source of Sexual Health Advice						
	n	Internet	Pharmacy	GP/Family Doctor	Local SH Clinic	Uni SH Clinic	SH Charity	Parents
All	3007	49.1	8.0	38.9	28.4	6.7	1.6	10.2
Age Group								
Teenagers	971	46.7	7.8	33.4	23.3	5.4	1.5	10.9
Young Students	1525	53.0	8.3	40.5	30.0	8.5	1.4	11.2
Older Students	412	43.0	7.5	47.1	35.4	3.9	2.4	6.3
x^2		17.880	0.378	25.745	24.345	15.865	2.311	8.738
p-Value		<0.001	0.828	<0.001	<0.001	<0.001	0.315	0.013
Gender								
Female	1816	52.0	9.6	49.0	35.2	7.5	0.8	12.7
Male	1158	44.7	5.5	23.5	18.1	5.5	2.8	6.3
Transsexual	18	27.8	-	-	-	-	-	-
Other	15	53.3	-	33.3	-	-	-	-
x^2		18.256	16.387	195.230	104.910	5.896	17.780	34.057
p-Value		<0.001	0.001	<0.001	<0.001	0.117	<0.001	<0.001
Age of Sexual Debut								
16 Years and over (or never)	2329	46.9	7.2	37.8	23.7	6.3	1.6	9.6
Under 16 Years	678	56.5	10.9	42.8	44.8	8.1	1.4	12.2
x^2		19.376	9.985	5.497	115.760	2.716	0.044	4.086
p-Value		<0.001	0.002	0.019	<0.001	0.099	0.834	0.043
Sexuality								
Heterosexual	2453	48.2	8.0	39.4	28.8	6.7	1.1	10.3
Bisexual	274	60.2	11.3	49.3	32.5	7.7	2.9	11.7
Homosexual*	168	53.6	4.2	19.0	24.4	6.5	6.0	4.2
Asexual	28	21.4	-	32.1	17.9	-	-	17.9
Other	84	36.9	6.0	32.1	15.5	-	-	11.9
x^2		29.223	7.935	42.683	12.198	1.355	30.997	9.421
p-Value		<0.001	0.094	<0.001	0.016	0.852	<0.001	0.051
Ethnicity								

White	2743	49.5	8.0	40.1	29.5	6.8	1.5	10.5
Mixed Race	98	52.0	12.2	39.8	26.5	9.2	-	8.2
Black	47	46.8	-	29.8	14.9	-	-	-
Asian	102	39.2	-	11.8	11.8	-	-	4.9
x^2		4.558	6.879	34.795	19.820	4.689	0.479	3.927
p-Value		0.207	0.076	<0.001	<0.001	0.196	0.923	0.269

*includes both men who have sex with men (MSM) and women who have sex with women (WSW).

Table 3. Logistic regression models for sources of sexual health advice adjusted and grouped by age, gender, sexuality and ag

	Source of Sexual Health Advice					
	Internet		Pharmacy		GP/Family Doctor	
	AOR (95% CI)	p-Value	AOR (95% CI)	p-Value	AOR (95% CI)	p-Value
Age Group						
Young students	1.29 (1.10-1.52)	0.002	1.10 (0.81-1.48)	0.547	1.47 (1.23-1.75)	<0.001
Older students	0.88 (0.69-1.11)	0.269	1.03 (0.66-1.61)	0.900	2.18 (1.70-2.81)	<0.001
Gender						
Male	0.75 (0.65-0.88)	<0.001	0.62 (0.46-0.85)	0.003	0.36 (0.30-0.43)	<0.001
Sexuality						
Bisexual	1.45 (1.11-1.89)	0.006	1.26 (0.83-1.92)	0.281	1.30 (0.99-1.70)	0.052
Homosexual*	1.38 (0.99-1.92)	0.056	0.53 (0.23-1.22)	0.137	0.51 (0.34-0.77)	0.001
Other	0.68 (0.44-1.04)	0.074	0.97 (0.43-2.17)	0.936	0.83 (0.52-1.32)	0.430
Age of sexual debut						
Under 16 years	1.35 (1.13-1.62)	0.001	1.41 (1.04-1.90)	0.025	1.06 (0.88-1.28)	0.548
Goodness of fit		0.578		0.902		0.870

	SH Charity		Parents		Friends	
	AOR (95% CI)	p-Value	AOR (95% CI)	p-Value	AOR (95% CI)	p-Value
Age Group						
Young students	0.82 (0.42-1.62)	0.573	1.05 (0.81-1.36)	0.737	1.08 (0.90-1.29)	0.401
Older students	1.36 (0.58-3.19)	0.483	0.56 (0.35-0.88)	0.011	0.64 (0.48-0.85)	0.002
Gender						
Male	3.09 (1.60-5.99)	<0.001	0.47 (0.35-0.63)	<0.001	0.45 (0.37-0.54)	<0.001
Sexuality						
Bisexual	3.77 (1.65-8.63)	0.002	1.06 (0.71-1.59)	0.768	1.16 (0.88-1.52)	0.307
Homosexual*	3.86 (1.73-8.63)	0.001	0.54 (0.25-1.17)	0.118	0.92 (0.62-1.37)	0.685
Other	3.06 (0.89-10.52)	0.077	1.86 (1.04-3.33)	0.036	0.48 (0.27-0.85)	0.012
Age of sexual debut						
Under 16 years	0.89 (0.42-1.88)	0.756	1.26 (0.95-1.65)	0.105	1.29 (1.06-1.56)	0.010
Goodness of fit		0.870		0.822		0.872

Reference groups; Age Group = Teenagers; Gender = Female; Sexuality = Heterosexual; Age of sexual debut = 16 years and older (or never)
*includes both men who have sex with men (MSM) and women who have sex with women (WSW).

Table 4. Main sources of sexual health treatment grouped by age, gender, age of sexual debut, sexuality and ethnicity

		Source of Sexual Health Treatment						
	n	Internet	Pharmacy	GP/Family Doctor	Local SH Clinic	Uni SH Clinic	SH Charity	Don't K to A
All	3007	2.6	2.3	20.2	24.9	4.5	0.7	
Age Group								
Teenagers	971	2.4	2.1	12.9	18.9	3.0	0.5	
Young Students	1525	3.0	2.0	23.3	27.1	6.2	0.6	
Older Students	412	2.4	3.2	27.7	32.3	1.9	1.5	
x^2		0.890	2.034	55.013	34.024	21.252	4.200	1.
p-Value		0.641	0.362	<0.001	<0.001	<0.001	0.122	0.
Gender								
Female	1816	2.5	2.5	24.2	28.9	5.0	0.4	
Male	1158	2.8	2.1	14.2	18.8	3.9	1.0	
Transsexual	18	-	-	-	-	-	-	
Other	15	-	-	-	-	-	-	
x^2		1.692	1.455	44.524	40.512	3.653	4.022	12
p-Value		0.639	0.693	<0.001	<0.001	0.301	0.259	0.
Age of Sexual Debut								
16 Years and over (or never)	2329	2.6	2.1	18.2	19.8	4.3	0.6	
Under 16 Years	678	2.7	3.2	27.0	42.3	5.2	0.7	
x^2		0.013	3.237	24.884	142.721	0.829	0.069	0.
p-Value		0.910	0.072	<0.001	<0.001	0.363	0.792	0.
Sexuality								
Heterosexual	2453	2.5	2.1	19.9	24.3	4.6	0.4	
Bisexual	274	3.3	4.0	30.3	31.0	5.1	1.8	
Homosexual*	168	3.6	-	12.5	29.8	4.2	-	
Asexual	28	-	-	-	-	-	-	
Other	84	-	-	15.5	14.3	-	-	
x^2		2.025	6.954	26.340	14.787	1.229	11.052	4.
p-Value		0.731	0.138	<0.001	0.005	0.873	0.026	0.
Ethnicity								
White	2743	2.3	2.1	20.8	25.7	4.5	0.6	
Mixed Race	98	-	-	20.4	27.6	6.1	-	

Black	47	-	-	19.1	10.6	-	-	
Asian	102	7.8	-	6.9	9.8	-	-	
x^2		13.126	9.967	11.867	18.758	2.521	3.323	4.
p-Value		0.004	0.019	0.008	<0.001	0.472	0.344	0.

*includes both men who have sex with men (MSM) and women who have sex with women (WSW).

Table 5. Logistic regression models for sources of sexual health treatment adjusted and grouped by age, gender, sexuali

	Source of Sexual Health Treatment					
	Internet		Pharmacy		GP/Family Doctor	
	AOR (95% CI)	p-Value	AOR (95% CI)	p-Value	AOR (95% CI)	p-Value
Age Group						
Young students	1.14 (0.68-1.91)	0.620	0.98 (0.55-1.74)	0.950	2.14 (1.71-2.68)	<0.001
Older students	0.81 (0.37-1.80)	0.601	1.46 (0.71-3.02)	0.307	3.01 (2.24-4.03)	<0.001
Gender						
Male	0.95 (0.58-1.56)	0.824	0.78 (0.45-1.36)	0.379	0.57 (0.46-0.70)	<0.001
Sexuality						
Bisexual	1.35 (0.65-2.80)	0.428	2.17 (1.09-4.31)	0.027	1.62 (1.21-2.17)	<0.001
Homosexual	1.68 (0.69-4.06)	0.250	1.51 (0.52-4.37)	0.451	0.71 (0.44-1.16)	0.172
Other	0.70 (0.16-2.97)	0.623	2.38 (0.82-6.92)	0.112	0.80 (0.45-1.43)	0.446
Age of sexual debut						
Under 16 years	1.11 (0.64-1.92)	0.711	1.73 (1.01-2.96)	0.045	1.49 (1.21-1.83)	<0.001
Goodness of fit		0.796		0.664		0.792
	Uni SH Clinic		SH Charity		Don't Know How to Access	
	AOR (95% CI)	p-Value	AOR (95% CI)	p-Value	AOR (95% CI)	p-Value
Age Group						
Young students	2.14 (1.40-3.28)	<0.001	1.02 (0.34-3.09)	0.968	0.73 (0.30-1.81)	0.498
Older students	0.67 (0.30-1.48)	0.319	2.72 (0.81-9.13)	0.105	0.24 (0.03-1.91)	0.176
Gender						
Male	0.78 (0.53-1.15)	0.202	2.47 (0.96-6.39)	0.062	0.29 (0.08-1.04)	0.057
Sexuality						
Bisexual	1.11 (0.62-1.98)	0.731	4.72 (1.58-14.09)	0.005	1.80 (0.56-5.81)	0.323
Homosexual	0.89 (0.38-2.09)	0.781	3.03 (0.80-11.38)	0.102	----	---
Other	0.54 (0.13-2.24)	0.395	2.15 (0.27-17.34)	0.472	----	---
Age of sexual debut						
Under 16 years	1.17 (0.78-1.75)	0.455	1.18 (0.41-3.35)	0.759	0.97 (0.34-2.71)	0.947
Goodness of fit		0.859		0.247		0.646

Reference groups; Age Group = Teenagers; Gender = Female; Sexuality = Heterosexual; Age of Sexual Debut = 16 Years and older (or
*includes both men who have sex with men (MSM) and women who have sex with women (WSW).